

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

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1. (currently amended) A telecommunication network, ~~preferably an ATM network, in~~
~~which the~~ having a downward data rate, from the network to the users, is greater than the upward
data rate, from the users to the network, comprising multiplexers for establishing connections,
constituting virtual channels, between users and the network, the virtual channels being grouped
into virtual paths, ~~characterized in that~~ wherein, in each multiplexer close to the user ~~(28, 22, 25)~~,
the bandwidth allocated to each downward virtual path is variable under the control of ~~a means~~
~~(30), such as~~ a call control means, provided upstream in a switching node ~~(12)~~, and ~~in~~
~~that~~ wherein the upward virtual paths have a fixed bandwidth.

2. (currently amended) A network according to claim 1, ~~characterized in that~~ wherein the call
control means ~~(30)~~ is provided with a memory containing information representing the maximum
bandwidth allocated downwardly to each user and representing the bandwidth allocated
downwardly to ~~the interface, or the~~ one or more interfaces, between the users' multiplexer and the
switching node ~~(12)~~, [?] ~~this~~ the control means using ~~these~~ information ~~in order~~ to limit the
bandwidth allocated to each user to its authorized maximum, and ~~in order~~ to limit the total

bandwidth allocated to the virtual paths to a value ~~which is at most equal to the interface, or to~~
~~interfaces, bandwidth not greater than the bandwidth of the one or more interfaces.~~

3. (currently amended) A network according to claim 1 or 2, ~~characterized in that~~wherein,
in the downward direction, each virtual channel is assigned a ~~permanent or semi-permanent~~
quality of service.

4. (currently amended) A network according to claim 3, ~~characterized in that~~wherein the
multiplexer ~~which is the~~ closest to the user has, for each virtual channel of the downward
direction, a buffer memory ~~(46, 48)~~ for ATM cells ~~with~~of a given priority.

Claims 5-7 (canceled)

8. (currently amended) A method for controlling a telecommunication network, in which
connections are realized by virtual channels grouped into virtual paths, ~~characterized in~~
~~that~~wherein ~~the~~ a bandwidth of ~~the~~ downward virtual paths are controllable dynamically from an
upstream controller ~~(30)~~, and ~~in that~~ the bandwidth of each upward virtual path is fixed.

9. (currently amended) A method according to claim 8, ~~characterized in that to~~wherein each downward virtual channel, is assigned a ~~given~~respective quality of service.

10. (new) An ATM network comprising:

a plurality of multiplexers for establishing connections between a plurality of users and the ATM network, wherein the multiplexers constitute virtual channels; and

a call control circuit provided upstream of the ATM network in a switching node,

wherein:

a downward data rate, from the ATM network to the users, is greater than an upward data rate, from the users to the network,

the virtual channels are grouped into virtual paths,

a bandwidth allocated to a downward virtual path from the ATM network to one of the plurality of users, is variably controlled by the call control circuit, and

an upward virtual path, from one of the plurality of users to the ATM network, has a fixed bandwidth.

11. (new) An ATM network according to claim 10, wherein:

the call control circuit is provided with a memory containing information representing a maximum bandwidth allocated downwardly to each user and representing a bandwidth allocated downwardly to an interface that is between the users' multiplexer and the switching node, and

the call control circuit utilizes the information to limit a bandwidth of the user to an authorized maximum bandwidth allocated to each user, and to limit a total bandwidth allocated to the virtual paths to a value which is not greater than the bandwidth of the interface.

12. (new) A method for controlling a telecommunication network, in which connections are realized by virtual channels grouped into virtual paths, comprising:

dynamically controlling the bandwidth of downward virtual paths by a controller located upstream,

wherein a bandwidth of each upward virtual path is fixed.